

## Claims

1. A method for implementing multicast services, comprising:

presetting a mapping relation between a multicast user address and a multicast group address;

5 obtaining a request packet sent by the multicast user who requests to join in the multicast group;

according to the multicast user address and multicast group address carried in the request packet, determining whether the multicast group address in the request packet matches corresponding multicast group address of the multicast user among the preset mapping relation; if yes, permitting the multicast user to join in the multicast group, 10 otherwise, rejecting the multicast user from joining in the multicast group.

2. The method according to claim 1, further comprising, establishing a mapping relation between the multicast user address and a multicast authority, and establishing a mapping relation between the multicast authority and the multicast group address;

15 wherein the step of determining whether the multicast group address in the request packet matches corresponding multicast group address of the multicast user among the preset mapping relation, further comprises:

determining whether the multicast group address in the request packet corresponds to the multicast authority, if yes,

20 determining whether the multicast group address in request packet matches that corresponding to the multicast authority, if yes,

permitting the multicast user to join in the multicast group, otherwise rejecting the multicast user from joining in the multicast group;

25 if the multicast group address in the request packet corresponds to no multicast authority, rejecting the multicast user from joining in the multicast group.

3. The method according to claim 2, if the multicast group address in the request packet corresponds to no multicast authority, further comprising:

30 determining whether the multicast user is a super user, if yes, permitting the multicast user to join in the multicast group, otherwise rejecting the multicast user from joining in the multicast group.

4. The method according to claim 1, wherein, the mapping relation between the

multicast user address and multicast group address is one-to-many.

5        5. The method according to claim 2, wherein, the mapping relation between the multicast user address and multicast authority is one-to-many or many-to-one;

         the mapping relation between multicast group address and multicast authority is  
5        one-to-many or many-to-one.

         6. The method according to claim 1, wherein, the multicast user address comprises a frame number, a slot number and a port number of a level-2 network equipment to which the multicast user is connected; or

         a frame number, a slot number, a port number, a Virtual LAN (VLAN) identifier, and  
10       an IP address of a level-3 network equipment to which the multicast user is connected.

         7. The method according to claim 6, wherein, the level-2 network equipment is a Digital Subscriber Line (DSL) broadband access equipment or a Local Area Network (LAN) switcher;

         the level-3 network equipment is a router or a level-3 switcher.

15       8. The method according to claim 1, wherein, the step of obtaining the request packet sent by the multicast user who requests to join in the multicast group comprises:

         snooping the request packet by using an Internet Group Management Protocol (IGMP).

         9. The method according to claim 1, wherein, the step of obtaining the request  
20       packet sent by the multicast user who requests to join in the multicast group comprises:

         an IGMP Proxy terminating the request packet and requesting upper-level network equipment for multicast recourses as a proxy of the multicast user.

         10. The method according to claim 1, wherein, the request packet is based on IGMP.